

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejection and further examination are requested.

Claims 3-6 and 10-13 have been indicated as containing allowable subject matter. The Applicants would like to thank the Examiner for this indication of allowable subject matter. Claims 3 and 10 have been amended to place them in independent form by including the limitations of claims 1 and 8, respectively, therein. As a result, claims 3-6 and 10-13 are now allowable.

Claims 1, 2 and 7 have been rejected under 35 U.S.C. §102(e) as being unpatentable over Maalej (US 6,545,532). However, it appears that this rejection is related to claims 1, 2, 8 and 9, since claim 7 was canceled without prejudice or disclaimer to the subject matter contained therein in the Amendment filed on May 17, 2005.

Claims 1 and 8 have been amended so as to further distinguish the present invention from the reference relied upon in the above-mentioned rejection. Support for these amendments can be found at least at paragraphs [0116] and [0117] of the original specification. As a result, the above-mentioned rejection is submitted to be inapplicable to the claims for the following reasons.

Claim 1 is patentable over Maalej, since claim 1 recites a digital broadcast receiving apparatus including, in part, second automatic gain control amplification means for amplifying a level of a first demodulated digital signal by following frequency fluctuations of oscillation amplitude thereof to be a second predetermined level, and generating a second demodulated digital signal. Maalej fails to disclose or suggest the second automatic gain control amplification means as recited in claim 1.

Maalej discloses a QAM demodulator 99 that includes a first automatic gain (AGC) controller circuit 10, a second automatic gain (AGC) controller circuit 20, and a carrier recovery circuit 50. The second AGC controller circuit 20 includes a digital multiplier 210, a digital loop filter 220, and a power comparator 230. The carrier recovery circuit 50 includes a frequency offset detect circuit 525, a phase offset detect circuit 535 and a direct digital synthesizer 545. The frequency offset detect circuit 525 is used to readjust the tuner frequency in order to reduce filter degradation on the signal and thus improve the bit error rate. The phase offset detect circuit 535 is used for phase tracking in a situation where phase noise is located on the signal.

The second AGC controller circuit 20 receives signal components I and Q from the carrier recovery circuit 50 via a receive filter 40 which filters out adjacent channels. Therefore, the second AGC controller 20 only takes into account the received power of the signal. The second AGC controller circuit 20 is operable to compensate for attenuation of the first AGC controller circuit 10, which is caused by the presence of the adjacent channels, and adapts the signal level exactly to decision threshold levels of the signal. (See column 4, line 64 – column 7, line 38 and Figures 2, 4 and 5).

In the rejection, it is indicated that the second AGC controller circuit 20 and the carrier recovery circuit 50 in tandem correspond to the second automatic gain control amplification means of claim 1. Further, the frequency offset detected by the frequency offset detect circuit 525 which is output to the AGC controller circuit 20 to be used for readjusting the tuner frequency is indicated in the rejection as corresponding to the claimed frequency fluctuations that are followed to amplify the level of the first demodulated digital signal to be at the second predetermined level. However, claim 1 now recites that the frequency fluctuations are of oscillation amplitude of the first demodulated digital signal. There is no disclosure or suggestion in Maalej that the frequency offset detect circuit 525 detects frequency fluctuations of oscillation amplitude or that the second AGC controller circuit 20 uses frequency fluctuations of oscillation amplitude in the manner recited in claim 1. As a result, claim 1 is patentable over Maalej.

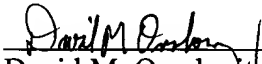
As for claim 8, it is patentable over Maalej for reasons similar to those discussed above in support of claim 1. That is, claim 8, similar to claim 1, recites, in part, a second automatic gain controller operable to amplify a level of a first demodulated digital signal by following frequency fluctuations of oscillation amplitude thereof to be a second predetermined level, and generate a second demodulated digital signal, which feature is not disclosed or suggested by Maalej.

Because of the above-mentioned distinctions, it is believed clear that claims 1-6 and 8-13 are not anticipated by Maalej. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to modify Maalej or to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-6 and 8-13. Therefore, it is submitted that claims 1-6 and 8-13 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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